ELSEVIER

ANIMAL BEHAVIOUR, 2010, 80, II–XXX

CONTENTS OF VOLUME 80

ABREU-VILLAÇA, YAEL *see* ANDERSON RIBEIRO-CARVALHO.. 51
acceptance threshold.. 607
acoustic communication.. .. .. 139, 189, 509, 597
acoustic space.. 991
Acromyrmex echinatior.. 487
activity.. 905
adult sex ratio.. 37
advertisement call.. 181
Affenberg Salem.. 675
Agave palmeri 289
age.. 363
aggregation.. 947
aggression.. .. .. 197, 277, 921
aggressive behaviour.. 713
aggressive call.. 181
aggressive signalling.. .. .. 821, e11(3)
agonistic interaction.. 629
AKÇAY, ÇAĞLAR, VERONICA A. REED, S. ELIZABETH CAMPBELL, CHRISTOPHER N. TEMPLETON, MICHAEL D. BEECHER, Indirect Reciprocity: Song Sparrows Distrust Aggressive Neighbours Based on Eavesdropping.. 1041
ÅKESSON, S. *see* M.J. WITT.. 571
Alabagrus texanus.. 391
ALARCÓN, RUBEN, JEFFREY A. RIFFELL, GOGGY DAVIDOWITZ, JOHN G. HILDEBRAND, JUDITH L. BRONSTEIN, Sex-dependent Variation in the Floral Preferences of the Hawkmoth *Manduca sexta*.. 289
alarm call.. 799
alarm calling.. 269
ALERSTAM, THOMAS *see* HÅKAN KARLSSON.. 399
ALI, JARED G., DOUGLAS W. TALLAMY, Female Spotted Cucumber Beetles Use Own Cuticular Hydrocarbon Signature to Choose Immunocompatible Mates.... 9
alien predator.. 461
allocentric orientation.... 125
allonursing.. 721
alloparental care.. 721
alternative mating strategy.. 829
alternative mating tactic.. 241
alternative reproductive tactic.. 773
altruism.. 873
AMOS, WILLIAM *see* HAZEL J. NICHOLS.. 649
amphibian.. 983
amphibian tadpole.. 461
analysis.. 583
animal communication.. .. .. 3, 249, e11(3)
animal homosexual behaviour.... 375
animal movement.. 571
animal personality.. 757
animal signal.. .. .. 3, 983
animal social network.. 551
animal structure.. 947

ELSEVIER

ANIMAL BEHAVIOUR, 2010, 80, II–XXX

CONTENTS OF VOLUME 80

ABREU-VILLAÇA, YAEL *see* ANDERSON RIBEIRO-CARVALHO.. 51
acceptance threshold.. 607
acoustic communication.. .. .. 139, 189, 509, 597
acoustic space.. 991
Acromyrmex echinatior.. 487
activity.. 905
adult sex ratio.. 37
advertisement call.. 181
Affenberg Salem.. 675
Agave palmeri 289
age.. 363
aggregation.. 947
aggression.. .. .. 197, 277, 921
aggressive behaviour.. 713
aggressive call.. 181
aggressive signalling.. .. .. 821, e11(3)
agonistic interaction.. 629
AKÇAY, ÇAĞLAR, VERONICA A. REED, S. ELIZABETH CAMPBELL, CHRISTOPHER N. TEMPLETON, MICHAEL D. BEECHER, Indirect Reciprocity: Song Sparrows Distrust Aggressive Neighbours Based on Eavesdropping.. 1041
ÅKESSON, S. *see* M.J. WITT.. 571
Alabagrus texanus.. 391
ALARCÓN, RUBEN, JEFFREY A. RIFFELL, GOGGY DAVIDOWITZ, JOHN G. HILDEBRAND, JUDITH L. BRONSTEIN, Sex-dependent Variation in the Floral Preferences of the Hawkmoth *Manduca sexta*.. 289
alarm call.. 799
alarm calling.. 269
ALERSTAM, THOMAS *see* HÅKAN KARLSSON.. 399
ALI, JARED G., DOUGLAS W. TALLAMY, Female Spotted Cucumber Beetles Use Own Cuticular Hydrocarbon Signature to Choose Immunocompatible Mates.... 9
alien predator.. 461
allocentric orientation.... 125
allonursing.. 721
alloparental care.. 721
alternative mating strategy.. 829
alternative mating tactic.. 241
alternative reproductive tactic.. 773
altruism.. 873
AMOS, WILLIAM *see* HAZEL J. NICHOLS.. 649
amphibian.. 983
amphibian tadpole.. 461
analysis.. 583
animal communication.. .. .. 3, 249, e11(3)
animal homosexual behaviour.... 375
animal movement.. 571
animal personality.. 757
animal signal.. .. .. 3, 983
animal social network.. 551
animal structure.. 947

animal welfare.. 363
ANOVA.. 583
ant.. 839
antiparasite defence.. 283
antipredator behaviour.. .. .. 215, 257, 737, 615
antipredator response.. 615
APARICIO, JOSÉ MIGUEL *see* GUSTAU CALABUIG.. 975
Apis mellifera.. 887
Aplysia californica.. 89
aplysioviolin.. 89
appeasement.. 197
approach speed.. 249
Apus apus.. 399
AQUILONI, LAURA *see* FRANCESCA GHERARDI.. 713
Argiope bruennichi.. 699
ÅSMUL, JILL INA *see* BJØRN MUNRO JENSSEN.. 667
assessment.. 809
assimilable mass coefficient.. 517
association.. 895
associative learning.. 839
asymmetric discrimination.. 311
attention.. 1075
Atlantic Forest.... 125
audience effect.. 467
audiogram.. 497
auditory brainstem response (ABR).. 497
auditory filter.. 497
AUERSPERG, ALICE M.I., GYULA K. GAJDON, LUDWIG HUBER, Kea, *Nestor notabilis*, Produce Dynamic Relationships between Objects in a Second-order Tool Use Task.. 783
AUGER-MÉTHÉ, MARIE *see* MARIANNE MARCOUX.. 329
AURELI, FILIPPO *see* EUGENIA POLIZZI DI SORRENTINO.. 117
aversive behaviour.. 13
AYASSE, MANFRED *see* KIRSTEN KREUTER.. 297
BÄCKMAN, JOHAN *see* HÅKAN KARLSSON.. 399
Babina daunchina.. 181
BAKER, PHILIP J. *see* CLAIRE V. DOWDING.. 13
BAKKER, THEO C.M. *see* TIMO THÜNKEN.. 69
banded mongoose.. 649
Barbary macaque.. 675
barrier web.. 947
Barro Colorado Island, Panama.. 475
barn owl.. 1049
BARRY, K.L., Influence of Female Nutritional Status on Mating Dynamics in a Sexually Cannibalistic Praying Mantid.. 405
BARRY, KATHERINE L., HANNA KOKKO, Male Mate Choice: Why Sequential Choice Can Make Its Evolution Difficult.. 163
BATCHELOR, TIM P., MARK BRIFFA, Influences on Resource-holding Potential During Dangerous Group Contests Between Wood Ants.. 443
Bayesian updating.. 737
BECKER, ELIZABETH A. *see* MATTHEW J. FUXJAGER.. 921
BEE, MARK A. *see* ELLIOT K. LOVE.. 509
BEECHER, MICHAEL D. *see* ÇAĞLAR AKÇAY.. 1041
begging.. .. .. 1049, e7(3)
begging behaviour.. .. .. e1(3)
behavioural plasticity.. 23
behavioural state.. 791
behavioural syndrome.... 689
behavioural test.. 1057
BEJDER, L. *see* C.H. FRÈRE.. 481
BELL, MATTHEW B.V. *see* HAZEL J. NICHOLS.. 649
BERGHÄNEL, ANDREAS, OLIVER SCHÜLKE, JULIA OSTNER, Coalition Formation among Barbary Macaque Males: the Influence of Scramble Competition.. 675

BERGMAN, THORE *see* ROBERT M. SEYFARTH.. 3
better option.. 319
BILDE, TRINE *see* CRISTINA TUNI.. 435
biological invasion.. 965
bird.. 375
birdsong.... .. .. 311, 427, 451, 821, e11(3)
BLACK, JEFFREY M. *see* PIA O. GABRIEL.. 689
black-throated blue warbler.. 821
BLAISDELL, AARON P. *see* ALVIN AADEN YIM-HOL CHAN.. 1075
BLAMIRES, SEAN J., YAT-HUNG LEE, CHIA-MING CHANG, ING-TING LIN, JOU-AN CHEN, TZU-YI LIN, I-MIN TSO, Multiple Structures Interactively Influence Prey Capture Efficiency in Spider Orb Webs.. 947
BLANC, ALAIN *see* HERVÉ MULARD.. 189
Blattella germanica.. 303
BLAUL, BIRGIT *see* JOACHIM RUTHER.... 1035
BLOMBERG, SIMON P. *see* GEOFF R. MACFARLANE.. 375
blue tit.. 853
BLUMSTEIN, DANIEL T. *see* ALVIN AADEN YIM-HOL CHAN.. 1075
body condition.. 405
body size.. .. .. 69, 443
bold–shy.. 921
Bombus terrestris.. 1065
BONCORAGLIO, GIUSEPPE, NICOLA SAINO, LÁSZLÓ Z. GARAMSZEGI, The Evolution of Begging in Cowbird's Hosts: a Reply to Rivers et al. (2010) .. .. e7(3)
BONO, GABRIELE *see* PAOLO MONGILLO.. 1057
BOOMSMA, JACOBUS J. *see* MICHIEL B. DIJKSTRA.. 487
BOS, NICK, FERNANDO J. GUERRIERI, PATRIZIA D'ETTORRE, Significance of Chemical Recognition Cues is Context Dependent in Ants.. 839
bottlenose dolphin.. .. .. 481, 895
BOULET, MARYLÈNE *see* MARIE J.E. CHARPENTIER.. 101
Braconidae.. 391
brain asymmetry.. 51
BRAUTH, STEVE *see* JIANGUO CUI.. 181
BRAWN, JEFFREY D. *see* COREY E. TARWATER.. 535
breeding performance.. 975
BRIFFA, MARK, ROBERT W. ELWOOD, Repeated Measures Analysis of Contests and Other Dyadic Interactions: Problems of Semantics, Not Statistical Validity.. 583
BRIFFA, MARK *see* SOPHIE L. MOWLES.. 277
BRIFFA, MARK *see* TIM P. BATCHELOR.... 443
BRISKIE, JAMES V. *see* JAMES W. RIVERS.. .. .. e1(3)
BROCKMANN, H. JANE *see* SHERI L. JOHNSON.. 773
BRODERICK, A.C. *see* M.J. WITT.. 571
BRONSTEIN, JUDITH L. *see* RUBEN ALARCÓN.. 289
brood care.. 69
brood parasitism.. .. .. e1(3), e7(3)
brood size.. 69
brown-headed cowbird.. .. .. e1(3), e7(3)
Bucephala clangula.. 881
budgerigar.. 615
Budongo Forest.. .. .. 467, 799
bumblebee.. 1065
burying beetle.... 607
butterfly.... .. .. 231, 621
cache pilferage.. 175
cache pilferage prevention.. 175
CALABUIG, GUSTAU, JOAQUÍN ORTEGO, PEDRO J. CORDERO, JOSÉ MIGUEL APARICIO, Colony Foundation in the Lesser Kestrel: Patterns and Consequences of the Occupation of Empty Habitat Patches 975
Callinectes sapidus.. 89
CAMPBELL, S. ELIZABETH *see* ÇAĞLAR AKÇAY.. 1041
Camponotus aethiops.. 839

CANDIOTTI, AGNÈS *see* ANNE MARIJKE SCHEL.. 799
canid.. 155
Canis dingo.. 155
Canis familiaris.. 1057
CANT, MICHAEL A. *see* HAZEL J. NICHOLS.. 649
capuchin.. 955
capuchin monkey.. 117
CARAZO, P. *see* E. FONT .. .. e1(2)
Carolina chickadee.. 497
CARR, JENNIE M., STEVEN L. LIMA, High Wind Speeds Decrease the Responsiveness of Birds to Potentially Threatening Moving Stimuli.. 215
categorization.. 109
Cebus.. .. .. 125, 955
Cebus apella.. 117
Cebus capucinus.. 475
CENNI, FEDERICA *see* FRANCESCA GHERARDI.. 713
CERVO, R. *see* I. ORTOLANI.. 683
CERVUS.. 721
CHAILLEUX, ANAÏS *see* FABRICE VINATIER.. 221
CHAN, ALVIN AADEN YIM-HOL, W. DAVID STAHLMAN, DENNIS GARLICK, CYNTHIA D. FAST, DANIEL T. BLUMSTEIN, AARON P. BLAISDELL, Increased Amplitude and Duration of Acoustic Stimuli Enhance Distraction.. 1075
CHANG, CHIA-MING *see* SEAN J. BLAMIRES.. 947
CHARPENTIER, MARIE J.E., JEREMY CHASE CRAWFORD, MARYLÈNE BOULET, CHRISTINE M. DREA, Message 'scent': Lemurs Detect the Genetic Relatedness and Quality of Conspecifics Via Olfactory Cues.. 101
chemical analysis.. 297
chemical communication.. .. .. 101, 983
chemical cue.. 405
chemical cue, template.. 607
chemical defence.. 89
chemoreception.. 461
CHEN, JOU-AN *see* SEAN J. BLAMIRES.. 947
CHENEY, DOROTHY L. *see* ROBERT M. SEYFARTH.. 3
chi-square.. 937
chickadee.. 175
chimpanzee.. .. .. 467, 873
Chiroptera.. 59
CHITTKA, LARS *see* HELENE MULLER.. 1065
Chrysomelidae.. 9
Chrysopidae.. 991
cichlid.. 69
Cichlidae.. 757
circular statistics.. 221
CLARK, ANNE B. *see* MICHAEL L. MILLER.. 615
CLARK, LIA, JAMES W.A. GRANT, Intrasexual Competition and Courtship in Female and Male Japanese Medaka, *Oryzias latipes*: Effects of Operational Sex Ratio and Density.... 707
CLAY, ZANNA *see* THIBAUD GRUBER.. 1023
CLERGEAU, PHILIPPE *see* ALEXANDRA RODRIGUEZ.. 965
clustering coefficient.. 551
coastal ecology.. 667
coevolution.. 497
COLBECK, GABRIEL J., T. SCOTT SILLETT, MICHAEL S. WEBSTER, Asymmetric Discrimination of Geographical Variation in Song in a Migratory Passerine.. 311
Colobus guereza.. 799
colonial breeding.. 975
colonization.. .. .. 965, 975
colour polymorphism.. .. .. 23, 845
COLTMAN, DAVID W. *see* ELISE RIOUX-PAQUETTE.. 865
Columba livia.. 109
COMINS, JORDAN A. *see* BRIAN E. RUSS.. 563

common goldeneye.. 881
common nightingale.. 427
common swift.... 399
communal breeding.. 721
communication.. .. .. 59, 427, 809, 1049, e1(2)
communication network.. .. .. 269, 1041
compensation.. 399
competition.. 563
complementary diet.. 659
concept.. 109
conditional reproductive strategy.. 241
conditioning.. 839
conflict prevention.. 117
conformity.. 955
confusion effect.. 643
connectivity.. 975
CONNOR, R. *see* C.H. FRÈRE.. 481
consistency of laterality.. 51
conspecific brood parasitism.. 881
contact call.. 133
contest.. .. .. 583, 809
contest competition.. 675
contest escalation.. 311
context.. 839
context dependent.. 921
Coolidge effect.. 435
COOPER, WILLIAM E., Pursuit Deterrence Varies with Predation Risks Affecting Escape Behaviour in the Lizard *Callisaurus draconoides*.. 249
cooperation.. .. .. 339, 873
cooperative breeding.. .. .. 649, 721
cooperatively breeding cichlid.. 757
CORDERO, PEDRO J. *see* GUSTAU CALABUIG.. 975
Cosmopolites sordidus.. 221
cost of signals.. 637
cost of worker reproduction.. 487
COTHRAN, RICKEY D., AMBER KUZMIC, GARY A. WELLBORN, RICK A. RELYEA, Phenotypic Manipulation Provides Insights into the Function of a Sexually Selected Trait in a Freshwater Crustacean Species Complex.. 543
COTTON, PETER A. *see* SOPHIE L. MOWLES.. 277
courtship.. 913
courtship behaviour.. 1035
courtship rate.. 707
COYNE, M.S. *see* M.J. WITT.. 571
COZZOLINO, ROBERTO *see* ARIANNA DE MARCO.. 197
CRAST, JESSICA, JESSICA M. HARDY, DOROTHY FRAGASZY, Inducing Traditions in Captive Capuchin Monkeys (*Cebus apella*).. 955
CRAWFORD, JEREMY CHASE *see* MARIE J.E. CHARPENTIER.. 101
CRESSWELL, WILL, JOHN L. QUINN, Attack Frequency, Attack Success and Choice of Prey Group Size for Two Predators with Contrasting Hunting Strategies.. 643
Crocuta crocuta.. 257
CROFOOT, MARGARET C., THOMAS D. LAMBERT, ROLAND KAYS, MARTIN C. WIKELSKI, Does Watching a Monkey Change Its Behaviour? Quantifying Observer Effects in Habituated Wild Primates Using Automated Radiotelemetry.. 475
CUCCO, M. *see* V. GARCIA-FERNANDEZ.. 45
cuckoo bumblebee.. 297
CUI, JIANGUO, YUSHENG WANG, STEVE BRAUTH, YEZHONG TANG, A Novel Female Call Incites Male–Female Interaction and Male–Male Competition in the Emei Music Frog, *Babina daunchina*.. 181
cultural evolution.. 427
culture.. 1023
cumulative assessment model.. 277

CURTIS, J. THOMAS, Does Fertility Trump Monogamy? .. 319
cuticular hydrocarbon.. 9, 683, 839
Cyanistes caeruleus.. 853
Cyanocitta stelleri.. 689
DALLAIRE, JAMIE *see* SARAH-LEE C. TILLY.. 363
dance communication.... 887
Datura wrightii.... 289
DAUKŠTE, JANĪNA *see* INESE KIVLENIECE.. 1015
DAVID STAHLMAN, W. *see* ALVIN AADEN YIM-HOL CHAN.. 1075
DAVIDOWITZ, GOGGY *see* RUBEN ALARCÓN.. 289
DAWKINS, MARIAN STAMP, Do Asymmetries Destabilize the Prisoner's Dilemma and Make Reciprocal Altruism Unlikely?.. 339
DE MARCO, ARIANNA, ROBERTO COZZOLINO, FRANCESCO DESSÌ-FULGHERI, BERNARD THIERRY, Conflicts Induce Affiliative Interactions among Bystanders in a Tolerant Species of Macaque (*Macaca tonkeana*).. 197
DE MARCO, RODRIGO J. *see* MARIANA GIL.. 887
decapitation.. 147
DECHMANN, DINA K.N. *see* SILKE L. VOIGT-HEUCKE.. 59
decision making.. 205, 921
decoy.. 965
degree distribution.. 551
delayed dispersal.. 535
Dendroica.. 311
Dendroica caerulescens.. 821
DERBY, CHARLES D. *see* MICHIYA KAMIO.. 89
DESSÌ-FULGHERI, FRANCESCO *see* ARIANNA DE MARCO.. 197
deterrent.. 89
detour task.. 155
Diabrotica.. 9
diapause.... 413
digestive transit time.. 517
DIJKSTRA, MICHIEL B., JELLE S. VAN ZWEDEN, MARIA DIRCHSEN, JACOBUS J. BOOMSMA, Workers of *Acromyrmex echinatior* Leafcutter Ants Police Worker-laid Eggs, But Not Reproductive Workers.. 487
DILLON, AOIFE B. *see* DARRAGH E. ENNIS.. 283
dingo.. 155
DIRCHSEN, MARIA *see* MICHIEL B. DIJKSTRA.. 487
direct selection.. 435
discrimination.. 607
dispersal.... 221, 311
display fight.. 809
distance fled.. 249
distraction.. 1075
divorce.. 319
DOAKE, S., M. SCANTLEBURY, R.W. ELWOOD, The Costs of Bearing Arms and Armour in the Hermit Crab *Pagurus bernhardus*.. 637
dog.. 155, 1057
dog ageing.. 1057
dog–human relationship.. 1057
domestic dog.. 13
domestication.. 155
dominance.. 467
dominance hierarchy.. 339
DOWDING, CLAIRE V., STEPHEN HARRIS, SIMON POULTON, PHILIP J. BAKER, Nocturnal Ranging Behaviour of Urban Hedgehogs, *Erinaceus europaeus*, in Relation to Risk and Reward.. 13
DREA, CHRISTINE M. *see* MARIE J.E. CHARPENTIER.. 101
DREISS, AMÉLIE, NAOUEL LAHLAH, ALEXANDRE ROULIN, How Siblings Adjust Sib–Sib Communication and Begging Signals to Each Other.. 1049
drift.. 399
Drosophila melanogaster.. 913
D'ETTORRE, PATRIZIA *see* NICK BOS.. 839

DUGDALE, HANNAH L., STEPHEN A. ELLWOOD, DAVID W. MACDONALD, Alloparental Behaviour and Long-term Costs of Mothers Tolerating Other Members of the Group in a Plurally Breeding Mammal.. 721
DUKAS, REUVEN, Causes and Consequences of Male–Male Courtship in Fruit Flies.. 913
DUTILLEUL, PIERRE *see* MARIANNE MARCOUX.. 329
DUYCK, PIERRE-FRANÇOIS *see* FABRICE VINATIER.. 221
East Africa.. 257
eavesdropping.... 59, 1041
EENS, MARCEL *see* HECTOR F. RIVERA-GUTIERREZ.. 451
ectoparasitism.... 975
egg testosterone.. 45
EKKER, MORTEN *see* BJØRN MUNRO JENSSEN.. 667
ELIE, JULIE E., MYLÈNE M. MARIETTE, HÉDI A. SOULA, SIMON C. GRIFFITH, NICOLAS MATHEVON, CLÉMENTINE VIGNAL, Vocal Communication at the Nest between Mates in Wild Zebra Finches: a Private Vocal Duet?.. 597
ELLICK, J. *see* M.J. WITT.. 571
ELLWOOD, STEPHEN A. *see* HANNAH L. DUGDALE.. 721
ELWOOD, R.W. *see* S. DOAKE.. 637
ELWOOD, ROBERT W. *see* MARK BRIFFA.. 583
Emei music frog.. 181
EMERY THOMPSON, MELISSA *see* STEVEN W. GANGESTAD.. 1005
EMERY, NATHAN J., Behavioural Types and Ecological Effects in a Natural Population of the Cooperative Cichlid *Neolamprologus pulcher*.. 769
Emphorini.. 241
energetic status.. 443
energetic war of attrition.. 277
energetics.. 667
energy use.. 637
ENNIS, DARRAGH E., AOIFE B. DILLON, CHRISTINE T. GRIFFIN, Pine Weevils Modulate Defensive Behaviour in Response to Parasites of Differing Virulence.. 283
enrichment.. 363
entomopathogenic nematode.. 283
episodic personality.. 1065
Erinaceus europaeus.. 13
escape behaviour.. 249
escapin.. 89
establishment.. 363
ester.. 297
ESTRADA, CATALINA, LAWRENCE E. GILBERT, Host Plants and Immatures as Mate-searching Cues in *Heliconius* Butterflies.... 231
Eupelmus vuilleti.. 629
Eurasian kestrel.. 147
European hedgehog.. 13
European starling.. 965
evolution.. 413, e1(2)
exact testing.. 937
exaggerated perineal swelling.. 829
experimental design.. 419
exploration.. 689, 905
exploratory behaviour.. 205
extended phenotype.. 947
extraneous noise.. 1075
Falco naumanni.. 975
Falco tinnunculus.. 147
familiarity.. 109
family living.. 535
FAST, CYNTHIA D. *see* ALVIN AADEN YIM-HOL CHAN.. 1075
fecundity.. 621
feeding constraint hypothesis.. 147
feeding rate.. 517
FELDHOFF, PAMELA W. *see* ELYSE A. VACCARO.. 983

FELDHOFF, RICHARD C. *see* ELYSE A. VACCARO.. 983
female call.. 181
female choice.. 9
female egg load.. 629
female nutritional status.. 405
female reproduction.. 829
female–female.... 375
female–female contest.. 629
female preference.. 983
fertile sperm.. 37
FESTA-BIANCHET, MARCO *see* ELISE RIOUX-PAQUETTE.. 865
Ficedula hypoleuca.. 517
fight.. 277
fighting.. 583
fighting skill.. 745
FILGUEIRAS, CLÁUDIO C. *see* ANDERSON RIBEIRO-CARVALHO.. 51
FISCHER, JULIA *see* ROBERT M. SEYFARTH.. 3
flight.. 249
flight initiation distance.. 737
flight response.. 215
fluctuating asymmetry.. 1005
FONT, E., P. CARAZO, Animals in Translation: Why There Is Meaning (but Probably No Message) in Animal Communication.. .. .. e1(2)
food caching.. 175
footprint cue.. 297
foraging.. .. .. 147, 955
foraging efficiency.. 791
FORMIA, A. *see* M.J. WITT.. 571
Formica rufa.. 443
founder individual.. 975
fractionation.. 297
FRAGASZY, DOROTHY M., REBECCA GREENBERG, ELISABETTA VISALBERGHI, EDUARDO B. OTTONI, PATRICIA IZAR, QING LIU, How Wild Bearded Capuchin Monkeys Select Stones and Nuts to Minimize the Number of Strikes Per Nut Cracked.. 205
FRAGASZY, DOROTHY *see* JESSICA CRAST.. 955
FRANCKE, WITTKO *see* KIRSTEN KREUTER.. 297
frequency resolution.. 497
frequency selectivity.. 497
FRÈRE, C.H., M. KRÜTZEN, J. MANN, J.J. WATSON-CAPPS, Y.J. TSAI, E.M. PATTERSON, R. CONNOR, L. BEJDER, W.B. SHERWIN, Home Range Overlap, Matrilineal and Biparental Kinship Drive Female Associations in Bottlenose Dolphins.. 481
freshwater turtle.. 461
frog.. 509
fruit fly.. 913
FULLER, REBECCA C., LESLIE A. NOA, Female Mating Preferences, Lighting Environment, and a Test of the Sensory Bias Hypothesis in the Bluefin Killifish.. 23
functional information.. .. .. e1(2)
Fundulidae.. 23
FUXJAGER, MATTHEW J., JON L. MONTGOMERY, ELIZABETH A. BECKER. CATHERINE A. MARLER, Deciding to Win: Interactive Effects of Residency, Resources and 'Boldness' on Contest Outcome in White-footed Mice.. 921
GABRIEL, PIA O., JEFFREY M. BLACK, Behavioural Syndromes in Steller's Jays: the Role of Time Frames in the Assessment of Behavioural Traits.. 689
GAJDON, GYULA K. *see* ALICE M.I. AUERSPERG.. 783
GALLUP, ANDREW C. *see* MICHAEL L. MILLER.. 615
game theory.. 311
GANGESTAD, STEVEN W., LESLIE A. MERRIMAN, MELISSA EMERY THOMPSON, Men's Oxidative Stress, Fluctuating Asymmetry and Physical Attractiveness.. 1005
gape size limit.. 147
GARAMSZEGI, LÁSZLÓ Z. *see* GIUSEPPE BONCORAGLIO.. .. .. e7
GARANT, DANY *see* PIERRE-OLIVIER MONTIGLIO.. 905

GARCIA-FERNANDEZ, V., B. GUASCO, A. TANVEZ, A. LACROIX, M. CUCCO, G. LEBOUCHER, G. MALACARNE, Influence of Mating Preferences on Yolk Testosterone in the Grey Partridge.. 45
GARLICK, DENNIS *see* ALVIN AADEN YIM-HOL CHAN.... 1075
gene flow.. 311
generalist.. 297
generalist brood parasite.. .. .. e1(3)
genetic benefit.. 435
genital mutilation.. 699
geolocation.. 571
GERHARDT, H. CARL *see* VINCENT T. MARSHALL.. 139
German cockroach.. 303
GHERARDI, FRANCESCA, FEDERICA CENNI, GIULIANA PARISI, LAURA AQUILONI, Visual Recognition of Conspecifics in the American Lobster, *Homarus americanus*.. 713
GIL, MARIANA, RODRIGO J. DE MARCO, Decoding Information in the Honeybee Dance: Revisiting the Tactile Hypothesis.. 887
GILBERT, LAWRENCE E. *see* CATALINA ESTRADA.. 231
GODLEY, B.J. *see* M.J. WITT.. 571
GOH, MICHELLE Z., DOUGLASS H. MORSE, Male Mate Search for Female Emergence Sites by a Parasitic Wasp.. 391
GONÇALVES, INÊS BRAGA *see* JONATHAN WRIGHT.. 517
GONZALO, ADEGA *see* NURIA POLO-CAVIA.. 461
GOUBAULT, MARLÈNE *see* RIHAB MOHAMAD.. 629
GRANT, JAMES W.A. *see* LIA CLARK.. 707
gray treefrog.. 509
grazing.. 527
great ape.. 1023
great tit.. 451
green-veined white butterfly.. 413
GREENBERG, JULIA R., KATHARINA HAMANN, FELIX WARNEKEN, MICHAEL TOMASELLO, Chimpanzee Helping in Collaborative and Noncollaborative Contexts.. 873
GREENBERG, REBECCA *see* DOROTHY M. FRAGASZY.. 205
grey partridge.. 45
grey seal.... 667
GRIFFIN, CHRISTINE T. *see* DARRAGH E. ENNIS.. 283
GRIFFITH, SIMON C. *see* JULIE E. ELIE.. 597
GRIMES, TIPHANI V. *see* MICHIYA KAMIO.. 89
grooming.. .. .. 117, 283
GROSSMANN, HEIKO *see* HELENE MULLER.. 1065
ground squirrel.. 929
group composition.. 527
group living.. 643
group signature.. 133
group size.. 443
group-size effect.. 257
grouping behaviour.. 329
GROVE, MATT *see* AMY L. SCHREIER.. 75
GRUBER, THIBAUD, ZANNA CLAY, KLAUS ZUBERBÜHLER, A Comparison of Bonobo and Chimpanzee Tool Use: Evidence for a Female Bias in the *Pan* Lineage.. 1023
GUASCO, B. *see* V. GARCIA-FERNANDEZ.. 45
Guereza colobus.. 799
GUERRIERI, FERNANDO J. *see* NICK BOS.. 839
GYIMESI, ABEL, RICHARD A. STILLMAN, BART A. NOLET, Cryptic Interference Competition in Swans Foraging on Cryptic Prey.. 791
habit formation.. 955
habitat preference.. 221
habitat selection.. 975
habituation.. .. .. 51, 475
Halichoerus grypus.. 667
Heliconius.. 231

hamadryas baboon.. .. .. 75, 829
HAMANN, KATHARINA *see* JULIA R. GREENBERG.. 873
hammer stone.. 205
HAMMERSCHMIDT, KURT *see* ROBERT M. SEYFARTH.. 3
HANCOX, DANIEL, CONRAD J. HOSKIN, ROBBIE S. WILSON, Evening Up the Score: Sexual Selection Favours both Alternatives in the Colour-polymorphic Ornate Rainbowfish.. 845
handling.. 615
haptics.. 205
HARDY, JESSICA M. *see* JESSICA CRAST.. 955
HARE, JAMES F. *see* AMY B. THOMPSON.. 269
HARRIS, STEPHEN *see* CLAIRE V. DOWDING.. 13
HART, PAUL J.B., Repeated Measures Analysis of Contests and Other Dyadic Interactions: Problems of Semantics, Not Statistical Validity.. 591
HAUSBERGER, MARTINE *see* ALEXANDRA RODRIGUEZ.. 965
HAUSER, MARC D. *see* BRIAN E. RUSS.. 563
hawkmoth foraging behaviour.... 289
HAYS, G.C. *see* M.J. WITT.. 571
HAZLETT, NICOLE *see* DAVID HOF.. 821
HEALY, SUE, Comparing Samples with Large Numbers of Zeros.... 941
HEDENSTRÖM, ANDERS *see* HÅKAN KARLSSON.. 399
HEG, DIK *see* FARDO WITSENBURG.. 757
Heliconius.. 231
helper.... 721
helping behaviour.. 757
HENNINGSSON, PER *see* HÅKAN KARLSSON.. 399
HENRY, CHARLES S., MARTA M. WELLS, Acoustic Niche Partitioning in Two Cryptic Sibling Species of *Chrysoperla* Green Lacewings that Must Duet before Mating.. 991
HENRY, KENNETH S., JEFFREY R. LUCAS, Auditory Sensitivity and the Frequency Selectivity of Auditory Filters in the Carolina Chickadee, *Poecile carolinensis* 497
herbivore.. 527
hermit crab.. .. .. 277, 637, 1075
Heterorhabditis downesi.... 283
heterozygosity.. 101
hibernation.. 929
HILDEBRAND, JOHN G. *see* RUBEN ALARCÓN.. 289
HODGE, SARAH J. *see* HAZEL J. NICHOLS.. 649
HOF, DAVID, NICOLE HAZLETT, Low-amplitude Song Predicts Attack in a North American Wood Warbler.. 821
HOLEKAMP, KAY E. *see* WILINE M. PANGLE.. 257
HOLLÉN, LINDA I. *see* SIMON W. TOWNSEND.. 133
HOLT, MARLA M., BRANDON L. SOUTHALL, STEPHEN J. INSLEY, RONALD J. SCHUSTERMAN, Call Directionality and Its Behavioural Significance in Male Northern Elephant Seals, *Mirounga angustirostris*.. 351
Homarus americanus.. 713
home range.. 481
home range analysis.. 571
homosexual behaviour.. 913
honest signalling.. 101
honeybee.. 887
HOSKIN, CONRAD J. *see* DANIEL HANCOX.. 845
host begging.. .. .. e1(3)
host fidelity.. 231
host nest recognition.. 297
host plant.. 231
host plant selection.. 621
host–parasite coevolution.. .. .. e7(3)
HOUCK, LYNNE D. *see* ELYSE A. VACCARO.. 983
HUBER, LUDWIG *see* ALICE M.I. AUERSPERG.. 783
HUBER, LUDWIG *see* ANNA WILKINSON.. 109
human disturbance.. 737
HUMPHRIES, MURRAY M. *see* MARIANNE MARCOUX.. 329

hunting success.. 643
HUTCHINGS, M.R. *see* L.A. SMITH.. 527
HUTCHINS, MELISSA H. *see* MICHIYA KAMIO.. 89
HWI.. 481
hyaena.. 257
hydrocarbon.. 297
Hylobius abietis.. 283
ideal free distribution.. 791
immune challenge.. 1015
immunocompatibility.. 9
immunocompetence.. 9
inbreeding.. 865
inbreeding avoidance.. .. .. 101, 303, 865
incompatibility.. 319
Indian meal moth.. 37
indirect detection.. 269
indirect reciprocity.. 1041
indirect selection.. 435
individual behaviour.. 527
individual differences.. 257
individual recognition.... .. .. 109, 713
individual signature.. 189
information.. 3
information reliability.... 881
information transmission.. 3
INGLEBY, FIONA C., ZENOBIA LEWIS, NINA WEDELL, Level of Sperm Competition Promotes Evolution of Male Ejaculate Allocation Patterns in a Moth.. 37
initiation distance.. 249
INSLEY, STEPHEN J. *see* MARLA M. HOLT.. 351
intelligence.. 155
interactive benefit.. 947
interference competition.. 791
intersexual conflict.. 649
intersexual selection.. 543
intra-tree variation.. 659
intrasexual aggression.. 707
intrasexual competition.. 351
intrasexual selection.. 543
invasion.... 461
IZAR, PATRÍCIA *see* ANDRÉA PRESOTTO.. 125
IZAR, PATRÍCIA *see* DOROTHY M. FRAGASZY.. 205
Japanese medaka.. 707
JENSSEN, BJØRN MUNRO, JILL INA ÅSMUL, MORTEN EKKER, DAG VONGRAVEN, To Go for a Swim or Not? Consequences of Neonatal Aquatic Dispersal Behaviour for Growth in Grey Seal Pups.. 667
JOHNS, ROB, DAN QUIRING, Spatial Heterogeneity Within an Evergreen Conifer Promotes Foliage-age Dietary Mixing by a Specialist Herbivore.. 659
JOHNSON, SHERI L., H. JANE BROCKMANN, Costs of Multiple Mates: an Experimental Study in Horseshoe Crabs.. 773
KAMIO, MICHIYA, TIPHANI V. GRIMES, MELISSA H. HUTCHINS, ROBYN VAN DAM, CHARLES D. DERBY, The Purple Pigment Aplysioviolin in Sea Hare Ink Deters Predatory Blue Crabs through their Chemical Senses.. 89
KARASOV, WILLIAM H. *see* JONATHAN WRIGHT.. 517
KARLSSON, HÅKAN, PER HENNINGSSON, JOHAN BÄCKMAN, ANDERS HEDENSTRÖM, THOMAS ALERSTAM, Compensation for Wind Drift by Migrating Swifts.. 399
KAYS, ROLAND *see* MARGARET C. CROFOOT.. 475
KAZEM, ANAHITA J.N. *see* JONATHAN WRIGHT.. 517
kea.. 783
KEIL, PAMELA L., PAUL J. WATSON, Assessment of Self, Opponent and Resource during Male–Male Contests in the Sierra Dome Spider, *Neriene litigiosa*: Linyphiidae.. 809
KEMPENAERS, BART *see* CORINNA STEINMEYER.. 853

kin discrimination.. 865
kin recognition.. .. .. 101, 929
kin selection.. 303
kinship.. 481
KIVLENIECE, INESE, INDRIKIS KRAMS, JANĪNA DAUKŠTE, TATAJANA KRAMA, MARKUS J. RANTALA, Sexual Attractiveness of Immune-challenged Male Mealworm Beetles Suggests Terminal Investment in Reproduction 1015
KOKKO, HANNA *see* KATHERINE L. BARRY.. 163
KRAMA, TATAJANA *see* INESE KIVLENIECE.. 1015
KRAMS, INDRIKIS *see* INESE KIVLENIECE.. 1015
KREUTER, KIRSTEN, ROBERT TWELE, WITTKO FRANCKE, MANFRED AYASSE, Specialist *Bombus vestalis* and Generalist *Bombus bohemicus* Use Different Odour Cues to Find Their Host *Bombus terrestris*.. .. 297
KRÜTZEN, M. *see* C.H. FRÈRE.. 481
KULLMANN, HARALD *see* TIMO THÜNKEN.. 69
KUZMIC, AMBER *see* RICKEY D. COTHRAN.. 543
laboratory mice.. 363
LACROIX, A. *see* V. GARCIA-FERNANDEZ.. 45
lactate.. 637
LADAGE, LARA D. *see* VLADIMIR V. PRAVOSUDOV.. 175
LAHLAH, NAOUEL *see* AMÉLIE DREISS.... 1049
Lake Tanganyika.. 757
LAMBERT, THOMAS D. *see* MARGARET C. CROFOOT.. 475
Lanchester's attrition laws.. 443
language.. 3
LAPORTE, MARION N.C., KLAUS ZUBERBÜHLER, Vocal Greeting Behaviour in Wild Chimpanzee Females.. 467
large pine weevil.. 283
large versus small chicks.. 517
LAROCQUE, GUILLAUME *see* MARIANNE MARCOUX.. 329
LARSDOTTER MELLSTRÖM, HELENA, CHRISTER WIKLUND, What Affects Mating Rate? Polyandry is Higher in the Directly Developing Generation of the Butterfly *Pieris napi*.. 413
leafcutter ant.. 487
learning.. 913
LEBOUCHER, G. *see* V. GARCIA-FERNANDEZ.. 45
LEE, YAT-HUNG *see* SEAN J. BLAMIRES.. 947
LESCOURRET, FRANÇOISE *see* FABRICE VINATIER.. 221
lesser bulldog bat.. 59
lesser kestrel.. 975
Lévy walk.. 75
LEWIS, ZENOBIA *see* FIONA C. INGLEBY.. 37
life history.. 413
lifetime reproductive success.. 721
LIHOREAU, MATHIEU, COLETTE RIVAULT, German Cockroach Males Maximize Their Inclusive Fitness by Avoiding Mating with Kin.... 303
LIMA, STEVEN L. *see* JENNIE M. CARR.. 215
Limulus polyphemus.. 773
LIN, ING-TING *see* SEAN J. BLAMIRES.. 947
LIN, TZU-YI *see* SEAN J. BLAMIRES.. 947
LINDBLOM, KARI *see* HANNU PÖYSÄ.. 881
LINKLATER, WAYNE *see* RAY TOBLER.. 829
LITCHFIELD, CARLA ANITA *see* BRADLEY PHILIP SMITH.. 155
LIU, QING *see* DOROTHY M. FRAGASZY.. 205
load size.... 517
lobster.. 713
local enhancement.. 965
locomotion.. 983
logistic regression.. 583
Lombard effect.. 509
long-term memory 189
LÓPEZ, PILAR *see* NURIA POLO-CAVIA.. 461

LOVE, ELLIOT K., MARK A. BEE, An Experimental Test of Noise-dependent Voice Amplitude Regulation in Cope's Grey Treefrog, *Hyla chrysoscelis*.. 509
LØW, LINE M. *see* RONNY STEEN.. 147
LUCAS, JEFFREY R. *see* KENNETH S. HENRY.. 497
LUSCHI, P. *see* M.J. WITT.. 571
Luscinia megarhynchos.. 427
LUSSEAU, DAVID *see* JOANNA WISZNIEWSKI.. 895
Macaca sylvanus.. 675
Macaca tonkeana.. 197
MACDONALD, DAVID W. *see* HANNAH L. DUGDALE.. 721
MACFARLANE, GEOFF R., SIMON P. BLOMBERG, PAUL L. VASEY, Homosexual Behaviour in Birds: Frequency of Expression is Related to Parental Care Disparity Between the Sexes.. 375
Maculinea alcon.. 621
MALACARNE, G. *see* V. GARCIA-FERNANDEZ.. 45
male coalition.. 675
male mate choice.. .. .. 163, 303, 405, 699
male mate searching.. 231
male–male.. 375
male–male competition.. 809
mammal.. 829
Manduca sexta.. 289
MANHÃES, ALEX C. *see* ANDERSON RIBEIRO-CARVALHO.. 51
manipulation.. .. .. e1(2)
MANN, J. *see* C.H. FRÈRE.. 481
Mann–Whitney *U* test.. 937
MANSER, MARTA B. *see* SIMON W. TOWNSEND.. 133
MARCOUX, MARIANNE, GUILLAUME LAROCQUE, MARIE AUGER-MÉTHÉ, PIERRE DUTILLEUL, MURRAY M. HUMPHRIES, Statistical Analysis of Animal Observations and Associated Marks Distributed in Time Using Ripley's Functions.. 329
MARIETTE, MYLÈNE M. *see* JULIE E. ELIE.. 597
marine ecology.. 667
marine vertebrate.. 571
MARINELLI, LIETA *see* PAOLO MONGILLO.. 1057
MARION, G. *see* L.A. SMITH.. 527
marked temporal point pattern.. 329
MARLER, CATHERINE A. *see* MATTHEW J. FUXJAGER.. 921
MARSHALL, VINCENT T., H. CARL GERHARDT, A Precedence Effect Underlies Preferences for Calls with Leading Pulses in the Grey Treefrog, *Hyla versicolor*.. 139
MARTÍN, JOSÉ *see* NURIA POLO-CAVIA.. 461
MASON, GEORGIA J. *see* SARAH-LEE C. TILLY.. 363
mass.. 205
mate choice.. .. .. 45, 101, 319, 419, 435, 649, 773, 829, 845, 865, 983
mate guarding.... 649
mate recognition.. 181
mate searching.. 391
MATEO, JILL M., Self-referent Phenotype Matching and Long-term Maintenance of Kin Recognition.. .. 929
material benefit.. 435
maternal investment.. 45
MATHEVON, NICOLAS *see* HERVÉ MULARD.. 189
MATHEVON, NICOLAS *see* JULIE E. ELIE.. 597
mating plug.. 699
mating rate.. 413
mating signal.. 991
maximum likelihood.. 75
McSWAN, EMMA *see* JONATHAN WRIGHT.. 517
mealworm beetle.. 1015
meaning.. 3
means–end.. 783
mechanosensory input.. 887
meerkat.. 133
Meles meles.. .. .. 13, 721
MENNILL, DANIEL J. *see* MARC NAGUIB.. .. .. e11(3)

MERRIMAN, LESLIE A. *see* STEVEN W. GANGESTAD.. 1005
mesopredation.. 13
MEUTHEN, DENIS *see* TIMO THÜNKEN.. 69
mice.. 921
microsatellite.. 721
Microtus ochrogaster.. 319
migration.. 399
MILLER, AMBER *see* JENAI M. RUTLEDGE.. 419
MILLER, MICHAEL L., ANDREW C. GALLUP, ANDREA R. VOGEL, ANNE B. CLARK, Handling Stress Initially Inhibits, but then Potentiates Yawning in Budgerigars (*Melopsittacus undulatus*).. 615
Mirounga angustirostris.. 351
MOHAMAD, RIHAB, JEAN-PAUL MONGE, MARLÈNE GOUBAULT, Can Subjective Resource Value Affect Aggressiveness and Contest Outcome in Parasitoid Wasps? 629
MÖLLER, LUCIANA M. *see* JOANNA WISZNIEWSKI.. 895
Molothrus ater.. .. .. e1(3)
monandry.. 413
MONGE, JEAN-PAUL *see* RIHAB MOHAMAD.. 629
MONGILLO, PAOLO, GABRIELE BONO, LUCIA REGOLIN, LIETA MARINELLI, Selective Attention to Humans in Companion Dogs, *Canis familiaris* 1057
Monodon monoceros.. 329
monogamy.. 319
MONTGOMERY, JON L. *see* MATTHEW J. FUXJAGER.. 921
MONTIGLIO, PIERRE-OLIVIER, DANY GARANT, DON THOMAS, DENIS RÉALE, Individual Variation in Temporal Activity Patterns in Open-field Tests.. 905
MORSE, DOUGLASS H. *see* MICHELLE Z. GOH.. 391
motivation.. 363
MOWLES, SOPHIE L., PETER A. COTTON, MARK BRIFFA, Whole-organism Performance Capacity Predicts Resource-holding Potential in the Hermit Crab *Pagurus bernhardus*.. 277
MUELLER, JAKOB C. *see* CORINNA STEINMEYER.. 853
MULARD, HERVÉ, CLÉMENTINE VIGNAL, LISE PELLETIER, ALAIN BLANC, NICOLAS MATHEVON, From Preferential Response to Parental Calls to Sex-specific Response to Conspecific Calls in Juvenile Zebra Finches.. 189
MULLER, HELENE, HEIKO GROSSMANN, LARS CHITTKA, 'Personality' in Bumblebees: Individual Consistency in Responses to Novel Colours?.. 1065
MÜLLER, JOSEF K. *see* SANDRA STEIGER.. 607
multimodal communication.. 419
multiple queen mating.. 487
multiple signalling.. 451
MUNDRY, ROGER *see* PHILIPP SPRAU.. 427
Mungos mungo.. 649
Mus musculus.. 363
myrmecophily.. 621
NAGUIB, MARC, DANIEL J. MENNILL, The Signal Value of Birdsong: Empirical Evidence Suggests Song Overlapping is a Signal.. .. .. e11(3)
narwhal.. 329
Nasonia vitripennis.. 1035
natal dispersal.... 535
negotiation.. 1049
Neolamprologus pulcher.. 757
neophilia.. 1065
neophobia.. 1065
neoteny.. 1023
nepotism.. .. .. 101, 929
nest.. 181
nest predation.... 881
nestling development.. 147
nestmate recognition.. 683
Nestor notabilis.. 783
network density.. 551
NEUHÄUSER, MARKUS *see* GRAEME D. RUXTON.. 937

Neuroptera.. 991
NICHOLS, HAZEL J., WILLIAM AMOS, MICHAEL A. CANT, MATTHEW B.V. BELL, SARAH J. HODGE, Top Males Gain High Reproductive Success by Guarding More Successful Females in a Cooperatively Breeding Mongoose.. 649
Nicrophorus vespilloides.. 607
NOA, LESLIE A. *see* REBECCA C. FULLER.. 23
Noctilio albiventris.. 59
noise.. 509
NOLET, BART A. *see* ABEL GYIMESI.. 791
nonfertile sperm.. 37
northern elephant seal.. 351
notched noise.. 497
nuptial feeding.. 435
nursery web spider.. 435
nut.. 205
nutritional need.. 517
odour composition.. 297
offspring solicitation.. 517
olfactory discrimination.. 929
olfactory plasticity.. 1035
oligolecty.. 241
OLIVEIRA, REISLA, CLEMENS SCHLINDWEIN, Experimental Demonstration of Alternative Mating Tactics of Male *Ptilothrix fructifera* (Hymenoptera, Apidae).. 241
ontogeny.. 659
open-field test.. 905
opsin expression.. 23
optimal group size.. 643
optimization.. 205
orb web.. 947
orb-web spider.. 699
orientation.. 399
ORTEGO, JOAQUÍN *see* GUSTAU CALABUIG.. 975
Oryzias latipes.. 707
ORTOLANI, I., L. ZECHINI, S. TURILLAZZI, R. CERVO, Recognition of a Paper Wasp Social Parasite by Its Host: Evidence for a Visual Signal Reducing Host Aggressiveness.. 683
OSR.. 707
OSTNER, JULIA *see* ANDREAS BERGHÄNEL.. 675
OTTI, OLIVER *see* FARDO WITSENBURG.. 757
OTTONI, EDUARDO B. *see* DOROTHY M. FRAGASZY.. 205
oviposition.. 621
Ovis canadensis.. 865
ownership.. 563
oxidative stress.. 1005
PAES-BRANCO, DANIELLE *see* ANDERSON RIBEIRO-CARVALHO.. 51
Pagurus bernhardus.. .. .. 277, 637
pair bond.. 597
Pan.. 1023
PANGLE, WILINE M., KAY E. HOLEKAMP, Functions of Vigilance Behaviour in a Social Carnivore, the Spotted Hyaena, *Crocuta crocuta*.. 257
Pan troglodytes.. .. .. 467, 873
paper wasp.. 683
Papio h. hamadryas.. 829
parasite avoidance.. 283
parasite recognition.. 283
parasitic wasp.. 1035
parasitoid.. 1035
parental care.. 375
parent–offspring conflict.. 535
parent–offspring recognition.. 189
PARISI, GIULIANA *see* FRANCESCA GHERARDI.. 713
partner recognition.. 607

Parus major.. 451
passerine flock.. 215
past experience.. 629
path length.. 551
PATTERSON, E.M. *see* C.H. FRÈRE.. 481
pawedness.. 51
PELLETIER, LISE *see* HERVÉ MULARD.. 189
Pelvicachromis taeniatus.. 69
perception.. .. .. 205, 839
perception advertisement.. 799
perceptual learning.. 205
Perdix perdix.. 45
PÉREZ-BARBERÍA, F. JAVIER, JON M. YEARSLEY, Sexual Selection for Fighting Skills as a Driver of Sexual Segregation in Polygynous Ungulates: an Evolutionary Model.. 745
performance capacity.. 277
permutation testing.. 937
Peromyscus leucopus.. 921
PERREAULT, CHARLES, A Note on Reconstructing Animal Social Networks from Independent Small-group Observations.. 551
personal information.. 881
personality.. .. .. 689, 853, 905
phenotypic plasticity.. 413
pheromone.. .. .. 391, 983
phocid.. 667
phonotaxis.. 181
phycobilin.. 89
phycoerythrobilin.. 89
physical attractiveness 1005
physical cognition.. 783
physiological state.. 527
physiological status.. 629
Picea mariana.. 659
pied flycatcher.. 517
Pieris napi.. 413
pigeon.. 109
Pikonema alaskensis.. 659
pinniped.. 351
PINXTEN, RIANNE *see* HECTOR F. RIVERA-GUTIERREZ.. 451
Pisaura mirabilis.. 435
planning.. 117
plant volatile.. 231
plasticity.. 419
playback.. .. .. 133, 311, 351
PLEDGER, SHIRLEY *see* RAY TOBLER.. 829
Plethodon shermani.. 983
Plodia interpunctella.. 37
plural breeding.. 721
Poecile carolinensis.. 497
Polistes sulcifer.. 683
POLIZZI DI SORRENTINO, EUGENIA, GABRIELE SCHINO, ELISABETTA VISALBERGHI, FILIPPO AURELI, What Time Is It? Coping with Expected Feeding Time in Capuchin Monkeys.. 117
pollen load analysis.. 289
pollination.. 289
POLO-CAVIA, NURIA, ADEGA GONZALO, PILAR LÓPEZ, JOSÉ MARTÍN, Predator Recognition of Native but Not Invasive Turtle Predators by Naïve Anuran Tadpoles.. 461
polyadic interaction.. 197
polyandry.. .. .. 413, 435, 773
polygamy.. 375
polygyny.. 745
possession.. 563
postfledging care.. 189

POULTON, SIMON *see* CLAIRE V. DOWDING.. 13
power-law.. 551
PÖYSÄ, HANNU, KARI LINDBLOM, JARKKO RUTILA, JORMA SORJONEN, Response of Parasitically Laying Goldeneyes to Experimental Nest Predation.. 881
prairie vole.. 319
PRAVOSUDOV, VLADIMIR V., TIMOTHY C. ROTH II, LARA D. LADAGE, Chickadees are Selfish Group Members When It Comes to Food Caching.. 175
praying mantid.. 405
precedence effect.. 139
predation risk.. .. .. 249, 461, 643
predation.. 799
predator deterrence.. 799
predator–prey interaction.. 89
prefeeding.. 117
preference function.. 991
PRESOTTO, ANDRÉA, PATRÍCIA IZAR, Spatial Reference of Black Capuchin Monkeys in Brazilian Atlantic Forest: Egocentric or Allocentric?.. 125
previous habitat quality.. 629
prey carcass decoration.. 947
prey handling.. 147
prey preparation.. 147
prey vulnerability.. 643
primate.. .. .. 101, 197, 829
primate communication.. 799
primate evolution.. 1023
Prisoner's Dilemma.. .. .. 339, 1041
private communication.. 597
problem solving.. 155
protandry.. 699
protective response.. 1075
protein fingerprinting.. 881
Pseudomantis albofimbriata.. .. .. 163, 405
public information.. 881
pupal mating.. 231
pursuit deterrence.. 249
QUINN, JOHN L. *see* WILL CRESSWELL.. 643
QUIRING, DAN *see* ROB JOHNS.. 659
rainbowfish.. 845
random network.. 551
random walk.. 75
ranging.. 75
RANTALA, MARKUS J. *see* INESE KIVLENIECE.. 1015
raptor.. 147
RÉALE, DENIS *see* PIERRE-OLIVIER MONTIGLIO.. 905
reactive oxygen species.. 1005
reciprocal altruism.. 339
recognition.. .. .. 59, 839
recognition system.. 607
recognizing ownership.. 563
red-legged salamander.. 983
red wood ant.. 443
REED, VERONICA A. *see* ÇAĞLAR AKÇAY.. 1041
refuge distance.. 249
REGNIERS, SOFIE *see* HANS VAN DYCK.. 621
REGOLIN, LUCIA *see* PAOLO MONGILLO.. 1057
relatedness.. .. .. 481, 865, 895
reliability.. 821
RELYEA, RICK A. *see* RICKEY D. COTHRAN.. 543
repeatability.. .. .. 689, 853, 1065
repeatability of behavioural traits.. 757

repeated measures.. 583
repertoire composition.. 427
reproduction.. .. .. 319, 597
reproductive character displacement.. 991
reproductive isolation.. 311
reproductive self-restraint.. 487
reproductive skew.. 649
resource defence theory.. 707
resource structure.. 75
resource-holding potential.. .. .. 277, 443, 809
respecting ownership.. 563
reward value.. 363
REY, DENISE *see* GRAEME D. RUXTON.... 937
RFID.. 221
Rhadinocentrus ornatus.. 845
rhesus macaque.. 563
RIBEIRO-CARVALHO, ANDERSON, YAEL ABREU-VILLAÇA, DANIELLE PAES-BRANCO, CLÁUDIO C. FILGUEIRAS, ALEX C. MANHÃES, Novelty Affects Paw Preference Performance in Adult Mice.. .. 51
Richardson's ground squirrel.. 269
RIFFELL, JEFFREY A. *see* RUBEN ALARCÓN.. 289
RIOUX-PAQUETTE, ELISE, MARCO FESTA-BIANCHET, DAVID W. COLTMAN, No Inbreeding Avoidance in an Isolated Population of Bighorn Sheep.. 865
Ripley's *K* and *L* functions.. 329
risk allocation.. 737
risk taking.. 689
risk-sensitive behaviour.. 13
RIVAULT, COLETTE *see* MATHIEU LIHOREAU.. 303
RIVERA-GUTIERREZ, HECTOR F., RIANNE PINXTEN, MARCEL EENS, Multiple Signals for Multiple Messages: Great Tit, *Parus major*, Song Signals Age and Survival.. 451
RIVERS, JAMES W., JAMES V. BRISKIE, STEPHEN I. ROTHSTEIN, Have Brood Parasitic Cowbird Nestlings Caused the Evolution of More Intense Begging by Host Nestlings?.. .. .. .. e1(3)
road traffic.. 13
rodent.. 905
RODRIGUEZ, ALEXANDRA, MARTINE HAUSBERGER, PHILIPPE CLERGEAU, Flexibility in European Starlings' Use of Social Information: Experiments with Decoys in Different Populations.. .. 965
roosting behaviour.. 853
ROTH, TIMOTHY C. *see* VLADIMIR V. PRAVOSUDOV.. 175
ROTHSTEIN, STEPHEN I. *see* JAMES W. RIVERS .. .. e1(3)
ROULIN, ALEXANDRE *see* AMÉLIE DREISS.. 1049
route network.. 125
RUSS, BRIAN E., JORDAN A. COMINS, REBECCA SMITH, MARC D. HAUSER, Recognizing and Respecting Claims Over Resources in Free-ranging Rhesus Monkeys, *Macaca mulatta*.. 563
RUTHER, JOACHIM, KATHLEEN THAL, BIRGIT BLAUL, SVEN STEINER, Behavioural Switch in the Sex Pheromone Response of *Nasonia vitripennis* Females is Linked to Receptivity Signalling.. 1035
RUTILA, JARKKO *see* HANNU PÖYSÄ 881
RUTLEDGE, JENAI M., AMBER MILLER, GEORGE W. UETZ, Exposure to Multiple Sensory Cues as a Juvenile Affects Adult Female Mate Preferences in Wolf Spiders.. 419
RUXTON, GRAEME D., DENISE REY, MARKUS NEUHÄUSER, Comparing Samples with Large Numbers of Zeros.. 937
SAINO, NICOLA *see* GIUSEPPE BONCORAGLIO.. .. .. e7(3)
SALMON, FRÉDÉRIC *see* FABRICE VINATIER.. 221
same-sex sexual behaviour.. 375
sampling.. 551
sawfly.... 659
scale-free network.. 551
SCANTLEBURY, M. *see* S. DOAKE.. 637
SCHEL, ANNE MARIJKE, AGNÈS CANDIOTTI, KLAUS ZUBERBÜHLER, Predator-deterring Alarm Call Sequences in Guereza Colobus Monkeys are Meaningful to Conspecifics.. 799
SCHIELZETH, HOLGER *see* CORINNA STEINMEYER.. 853
SCHINO, GABRIELE *see* EUGENIA POLIZZI DI SORRENTINO.. 117

SCHLINDWEIN, CLEMENS *see* REISLA OLIVEIRA.. 241
SCHNEIDER, JUTTA M. *see* KATHARINA F. SCHULTE.. 699
SCHREIER, AMY L., MATT GROVE, Ranging Patterns of Hamadryas Baboons: Random Walk Analyses.. .. 75
SCHÜLKE, OLIVER *see* ANDREAS BERGHÄNEL.. 675
SCHULTE, KATHARINA F., GABRIELE UHL and JUTTA M. SCHNEIDER, Mate Choice in Males with One-shot Genitalia: Limited Importance of Female Fecundity.... 699
SCHÜRCH, ROGER *see* FARDO WITSENBURG.. 757
SCHUSTERMAN, RONALD J. *see* MARLA M. HOLT.. 351
Sciuridae.. 269
scramble competition.. .. .. 391, 675, 1049, e7(3)
seal.. 351
secondary sexual trait.. 829
SELÅS, VIDAR *see* RONNY STEEN.. 147
selective pressures.. 865
self-referential phenotype matching.. 929
semantic.. 799
sensory bias.. 23
sensory drive.. 23
sensory exploitation.. .. .. e1(2)
sex difference.. .. .. 189, 1023
sex pheromone.. 1035
sex role.. .. .. 303, 707
sex-specific behaviour.. 289
sexual behaviour.. 231
sexual cannibalism.. .. .. 163, 699
sexual conflict.... .. .. 375, 699, 991
sexual dimorphism.. 543
sexual harassment.. 773
sexual motivation.. 983
sexual segregation.. 745
sexual selection.. .. .. 23, 101, 311, 451, 699, 745, 845, 991, 1005, 1015
sexual trait.. 543
SEYFARTH, ROBERT M., DOROTHY L. CHENEY, THORE BERGMAN, JULIA FISCHER, KLAUS ZUBERBÜHLER, KURT HAMMERSCHMIDT, The Central Importance of Information in Studies of Animal Communication.. 3
shell.. 637
SHERWIN, W.B. *see* C.H. FRÈRE.. 481
sib–sib competition.. 1049
side-wind.. 399
sight.. 713
signal.. 277
signal design.. .. .. e1(2)
signal timing.. .. .. 139, e11(3)
signalling.. 809
SILLETT, T. SCOTT *see* GABRIEL J. COLBECK.. 311
similarity function.. 329
SIROT, ETIENNE, Should Risk Allocation Strategies Facilitate or Hinder Habituation to Nonlethal Disturbance in Wildlife?.. 737
skill acquisition.. 955
SLAGSVOLD, TORE *see* RONNY STEEN.... 147
sleep pattern.. 853
small-world network.. 551
SMITH, BRADLEY PHILIP, CARLA ANITA LITCHFIELD, How Well Do Dingoes, *Canis dingo*, Perform on the Detour Task?.. 155
SMITH, L.A., K.L. WELLS, G. MARION, D.L. SWAIN, M.R. HUTCHINGS, Effects of Group Composition on the Grazing Behaviour of Herbivores.. 527
SMITH, REBECCA *see* BRIAN E. RUSS.. 563
social attention.. 1057
social awareness.. 467
social behaviour.. .. .. 59, 643, 921
social cue.. 965

social evolution.. 481
social foraging.... 791
social information.. 965
socially mediated learning.. 955
social monogamy.. 597
social network.... 895
social parasitism.. 683
social status.. 921
social tension.. 197
social vigilance.. 257
sociality.. 269
soft song.. 821
solicitation.. 873
solitary bee.. 241
SONERUD, GEIR A. *see* RONNY STEEN.. 147
song overlapping.. .. .. e11(3)
song sharing.. 427
songbird.... 597
SORJONEN, JORMA *see* HANNU PÖYSÄ.. 881
SOULA, HÉDI A. *see* JULIE E. ELIE.. 597
sound radiation pattern.. 351
SOUTHALL, BRANDON L. *see* MARLA M. HOLT.. 351
spatial cognition.. .. .. 75, 125
spatial distribution.. 791
spatiotemporal.. 659
SPECHT, HANNA L. *see* ANNA WILKINSON.. 109
specialist.. 297
speciation.. 991
sperm allocation.. 37
sperm competition.. 773
sperm investment.. 37
Spermophilus richardsonii.. 269
spider.. 809
spotted cucumber beetle.. 9
SPRAU, PHILIPP, ROGER MUNDRY, Song Type Sharing in Common Nightingales, *Luscinia megarhynchos*, and its Implications for Cultural Evolution.. 427
Squamata.. 249
STAHLMAN, W. DAVID, *see* CHAN, ALVIN AADEN YIM-HOL.. 1075
stamina.. 277
statistics.. 937
STEEN, RONNY, LINE M. LØW, GEIR A. SONERUD, VIDAR SELÅS, TORE SLAGSVOLD, The Feeding Constraint Hypothesis: Prey Preparation as a Function of Nestling Age and Prey Mass in the Eurasian Kestrel.. 147
STEIGER, SANDRA, JOSEF K. MÜLLER, From Class-specific to Individual Discrimination: Acceptance Threshold Changes with Risk in the Partner Recognition System of the Burying Beetle *Nicrophorus vespilloides*.. 607
STEINER, SVEN *see* JOACHIM RUTHER.... 1035
Steinernema carpocapsae.. 283
STEINMEYER, CORINNA, HOLGER SCHIELZETH, JAKOB C. MUELLER, BART KEMPENAERS, Variation in Sleep Behaviour in Free-living Blue Tits, *Cyanistes caeruleus*: Effects of Sex, Age and Environment.. 853
Steller's jay.. 689
step length.. 75
stereotypic behaviour.. 363
STILLMAN, RICHARD A. *see* ABEL GYIMESI.. 791
stimulus movement.. 215
strategic signalling.. 467
stress.. 615
STROUD, STEDSON *see* M.J. WITT.. 571
Sturnus vulgaris.. 965
subadult experience.. 419

Suricata suricatta.. 133
SWAIN, D.L. *see* L.A. SMITH.. 527
swarming.. 391
syntax.. 799
TABORSKY, MICHAEL *see* SILKE L. VOIGT-HEUCKE.. 59
tactile stimulus.. 887
Taeniopygia guttata.. .. .. 189, 597
TALLAMY, DOUGLAS W. *see* JARED G. ALI.. 9
TANG, YEZHONG *see* JIANGUO CUI.. 181
TANVEZ, A. *see* V. GARCIA-FERNANDEZ.. 45
TARWATER, COREY E., JEFFREY D. BRAWN, Family Living in a Neotropical Bird: Variation in Timing of Dispersal and Higher Survival for Delayed Dispersers.. 535
telemetry.. 475
t test.. 937
TEMPLETON, CHRISTOPHER N. *see* ÇAĞLAR AKÇAY.. 1041
Tenebrio molitor.. 1015
terminal investment.. 1015
territoriality.. .. .. 921, 1041
territory defence.. 757
tetrapyrrole.. 89
THAL, KATHLEEN *see* JOACHIM RUTHER.. 1035
Thamnophilus atrinucha.. 535
thermoregulation.. .. .. 615, 667
THIERRY, BERNARD *see* ARIANNA DE MARCO.... 197
THOMAS, DON *see* PIERRE-OLIVIER MONTIGLIO.. 905
THOMPSON, AMY B., JAMES F. HARE, Neighbourhood Watch: Multiple Alarm Callers Communicate Directional Predator Movement in Richardson's Ground Squirrels, *Spermophilus richardsonii*.. 269
THÜNKEN, TIMO, DENIS MEUTHEN, THEO C.M. BAKKER, HARALD KULLMANN, Parental Investment in Relation to Offspring Quality in the Biparental Cichlid Fish *Pelvicachromis taeniatus*.. 69
TILLY, SARAH-LEE C., JAMIE DALLAIRE, GEORGIA J. MASON, Middle-aged Mice with Enrichment-resistant Stereotypic Behaviour Show Reduced Motivation for Enrichment.. 363
time-series analysis.. 329
TIXIER, PHILIPPE *see* FABRICE VINATIER.. 221
TOBLER, RAY, SHIRLEY PLEDGER, WAYNE LINKLATER, No Evidence for Ovarian Synchrony or Asynchrony in Hamadryas Baboons.. 829
TOMASELLO, MICHAEL *see* JULIA R. GREENBERG.. 873
Tonkean macaque.. 197
tool use.. .. .. 205, 783, 1023
topological map.. 125
TOWNSEND, SIMON W., LINDA I. HOLLÉN, MARTA B. MANSER, Meerkat Close Calls Encode Group-specific Signatures, but Receivers Fail to Discriminate.. 133
tracking.. 221
tracking radar.. 399
tradition.. 955
trapping success.. 689
tropical.. 535
TSAI, Y.J. *see* C.H. FRÈRE.. 481
TSO, I-MIN *see* SEAN J. BLAMIRES.. 947
TUNI, CRISTINA, TRINE BILDE, No Preference for Novel Mating Partners in the Polyandrous Nuptial-feeding Spider *Pisaura mirabilis* (Araneae: Pisauridae).. 435
TURILLAZZI, S. *see* I. ORTOLANI.. 683
Tursiops aduncus.. .. .. 481, 895
TWELE, ROBERT *see* KIRSTEN KREUTER.. 297
two-part testing.. 937
Tyto alba.. 1049
UETZ, GEORGE W. *see* JENAI M. RUTLEDGE.. 419
UHL, GABRIELE *see* KATHARINA F. SCHULTE.. 699
unequal competitors.. 791
ungulate.. 745

urbanization.. 13
VACCARO, ELYSE A., PAMELA W. FELDHOFF, RICHARD C. FELDHOFF, LYNNE D. HOUCK, A Pheromone Mechanism for Swaying Female Mate Choice: Enhanced Affinity for a Sexual Stimulus in a Woodland Salamander.. 983
VAN DAM, ROBYN *see* MICHIYA KAMIO.. 89
VAN DYCK, HANS, SOFIE REGNIERS, Egg Spreading in the Ant-parasitic Butterfly, *Maculinea alcon*: from Individual Behaviour to Egg Distribution Pattern.. 621
VAN ZWEDEN, JELLE S. *see* MICHIEL B. DIJKSTRA.. 487
VASEY, PAUL L. *see* GEOFF R. MACFARLANE.. 375
vigilance.. 643
VIGNAL, CLÉMENTINE *see* HERVÉ MULARD.. 189
VIGNAL, CLÉMENTINE *see* JULIE E. ELIE.. 597
VINATIER, FABRICE, ANAÏS CHAILLEUX, PIERRE-FRANÇOIS DUYCK, FRÉDÉRIC SALMON, FRANÇOISE LESCOURRET, PHILIPPE TIXIER, Radiotelemetry Unravels Movements of a Walking Insect Species in Heterogeneous Environments.. 221
VISALBERGHI, ELISABETTA *see* DOROTHY M. FRAGASZY.. 205
VISALBERGHI, ELISABETTA *see* EUGENIA POLIZZI DI SORRENTINO.. 117
visual signal.. 683
vocal behaviour.. 351
vocal communication.. .. .. 351, 497
vocal directionality.. 351
vocal duet.. 597
vocal interaction.. .. .. e11(3)
vocal primate cognition.. 467
vocal recognition.. 189
vocalization.. 133
VOGEL, ANDREA R. *see* MICHAEL L. MILLER.. 615
VOIGT-HEUCKE, SILKE L., MICHAEL TABORSKY, DINA K.N. DECHMANN, A Dual Function of Echolocation: Bats Use Echolocation Calls to Identify Familiar and Unfamiliar Individuals.. .. 59
voltinism.. 413
VONGRAVEN, DAG *see* BJØRN MUNRO JENSSEN.. 667
waggle dance.. 887
waiting time.. 75
WANG, YUSHENG *see* JIANGUO CUI.. 181
WARNEKEN, FELIX *see* JULIA R. GREENBERG.. 873
WATSON, PAUL J. *see* PAMELA L. KEIL.... 809
WATSON-CAPPS, J.J. *see* C.H. FRÈRE.. 481
weapon.. 443
WEBSTER, MICHAEL S. *see* GABRIEL J. COLBECK.. 311
WEDELL, NINA *see* FIONA C. INGLEBY.. 37
WELLBORN, GARY A. *see* RICKEY D. COTHRAN.. 543
WELLS, K.L. *see* L.A. SMITH.. 527
WELLS, MARTA M. *see* CHARLES S. HENRY.. 991
western slaty-antshrike.. 535
WIKELSKI, MARTIN C. *see* MARGARET C. CROFOOT.. 475
WIKLUND, CHRISTER *see* HELENA LARSDOTTER MELLSTRÖM.. 413
Wilcoxon–Mann–Whitney.. 937
WILKINSON, ANNA, HANNA L. SPECHT, LUDWIG HUBER, Pigeons can Discriminate Group Mates From Strangers Using the Concept of Familiarity.. 109
WILSON, ROBBIE S. *see* DANIEL HANCOX.. 845
wind.. .. .. 215, 399
winning behaviour.. 921
WISZNIEWSKI, JOANNA, DAVID LUSSEAU, LUCIANA M. MÖLLER, Female Bisexual Kinship Ties Maintain Social Cohesion in a Dolphin Network.. 895
WITSENBURG, FARDO, ROGER SCHÜRCH, OLIVER OTTI, DIK HEG, Behavioural Types and Ecological Effects in a Natural Population of the Cooperative Cichlid *Neolamprologus pulcher*.. .. 757
WITT, M.J., S. ÅKESSON, A.C. BRODERICK, M.S. COYNE, J. ELLICK, A. FORMIA, G.C. HAYS, P. LUSCHI, STEDSON STROUD, B.J. GODLEY, Assessing Accuracy and Utility of Satellite-tracking Data Using Argos-linked Fastloc-GPS.. 571
wolf spider.. 419
worker policing.. 487

WRIGHT, JONATHAN, WILLIAM H. KARASOV, ANAHITA J.N. KAZEM, INÊS BRAGA GONÇALVES, EMMA McSWAN, Begging and Digestive Responses to Differences in Long-term and Short-term Need in Nestling Pied Flycatchers.... 517
yawning.... 615
YEARSLEY, JON M. *see* F. JAVIER PÉREZ-BARBERÍA.. 745
zebra finch.. 189, 597
ZECHINI, L. *see* I. ORTOLANI.. 683
ZUBERBÜHLER, KLAUS *see* ANNE MARIJKE SCHEL.. 799
ZUBERBÜHLER, KLAUS *see* MARION N.C. LAPORTE.. 467
ZUBERBÜHLER, KLAUS *see* ROBERT M. SEYFARTH.. 3
ZUBERBÜHLER, KLAUS *see* THIBAUD GRUBER.... 1023